BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

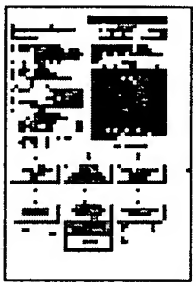
IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents *will not* correct images, please do not report the images to the Image Problem Mailbox.

Title: **JP2000228193A2: CARBONACEOUS NEGATIVE ELECTRODE ACTIVE MATERIAL FOR NONAQUEOUS SECONDARY BATTERY AND NONAQUEOUS SECONDARY BATTERY**

Country: **JP** Japan

Kind: **A2** Document Laid open to Public inspection



View Image

1 page

Inventor: **KINOSHITA SHINICHI**;
OKAHARA KENJI;
KATO AKIO;
YAMAGUCHI SHOJI;

Assignee: **MITSUBISHI CHEMICALS CORP**
News, Profiles, Stocks and More about this company

Published / Filed: **Aug. 15, 2000** / Feb. 4, 1999

Application Number: **JP1999000026819**

IPC Code: **H01M 4/58**; H01M 4/02; H01M 10/40; C01B 31/02;

Priority Number: Feb. 4, 1999 **JP1999000026819**

Abstract: **Problem to be solved**: To provide a negative electrode active material having a high capacity and excellent efficiency, and a nonaqueous secondary battery using it.
Solution: This carbonaceous negative electrode active material is composed of a mixture of at least graphite and fired carbon. The fired carbon has such a pore distribution by a BET adsorption method of gaseous nitrogen that pores having diameters below 8 Å exist as many as 2×10-4 CC/g or more, and that pores having diameters in the range of 8-18 Å exist as many as 15×10-4 CC/g or less, and the fired carbon is obtained, for example, by executing a first heat treatment at 250-650°C under an inert gas atmosphere and second heating treatment at 700-1,500°C under an inert gas atmosphere of fine powdery carbonaceous material. This nonaqueous secondary battery has a negative electrode in which this carbonaceous negative electrode active material is used.

Family: Show 2 known family members

Other Abstract Info: CHEMABS 133(12)166262B CHEMABS 133(12)166262B DERABS C2000-596944 DERABS C2000-596944

(19)

(11) Publication number: **2000228193 A**

PATENT ABSTRACTS OF JAPAN

(21) Application number: **11026819**

(51) Intl. Cl.: **H01M 4/58** H01M 4/02 H01M 10/40

(22) Application date: **04.02.99**

(30) Priority:

(43) Date of application publication: **15.08.00**

(84) Designated contracting states:

(71) Applicant: **MITSUBISHI CHEMICALS CORP**

(72) Inventor: **KINOSHITA SHINICHI**
OKAHARA KENJI
KATO AKIO
YAMAGUCHI SHOJI

(74) Representative:

(54) CARBONACEOUS NEGATIVE ELECTRODE ACTIVE MATERIAL FOR NONAQUEOUS SECONDARY BATTERY AND NONAQUEOUS SECONDARY BATTERY

(57) Abstract:

PROBLEM TO BE SOLVED: To provide a negative electrode active material having a high capacity and excellent efficiency, and a nonaqueous secondary battery using it.

SOLUTION: This carbonaceous negative electrode active material is composed of a mixture of at least graphite and fired carbon. The fired carbon has such a pore distribution by a BET adsorption method of gaseous nitrogen that pores having diameters below 8 Å exist as many as 2×10-4 CC/g or more, and that pores having diameters in the range of 8-18 Å exist as many as 15×10-4 CC/g or less, and the fired carbon is obtained, for example, by executing a first heat treatment at 250-650°C under an inert gas atmosphere and second

heating treatment at 700-1,500°C under an inert gas atmosphere of fine powdery carbonaceous material. This nonaqueous secondary battery has a negative electrode in which this carbonaceous negative electrode active material is used.